California Regional Water Quality Control Board
Central Valley Region

ORDER NO. R5-2011- XXXX
NPDES NO. CA0083861

REVISED WASTE DISCHARGE REQUIREMENTS
FOR
AEROJET-GENERAL CORPORATION
INTERIM GROUNDWATER EXTRACTION AND TREATMENT SYSTEMS
ARGET, GET E/F, GET H-A, GET J, GET K-A,
GET L-A, GET L-B, SAILOR BAR PARK WELL, CHETTENHAM WELL,
GOLDEN STATE WATER WELLS AND LOW THREAT DISCHARGES
SACRAMENTO COUNTY

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	Aerojet-General Corporation
Name of Facility	Groundwater Extraction and Treatment Systems ARGET, GET E/F, GET H-A, GET J, GET K-A, GET L-A, GET L-B, Sailor Bar Park Well, Chettenham, Golden State Water Wells and Low-Threat Discharges
Facility Address	Aerojet Road
	Sacramento, CA 95813-6000
	Sacramento County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
Outfall 001	Treated Groundwater from ARGET, GETE/F, GET J	38º, 38', 00" N	121º, 16', 07" W	Buffalo Creek to American River
Outfall 002*	Treated Groundwater from GET L-A	38º, 36', 29" N	121º, 18', 33" W	American River
Outfall 002A	Treated Groundwater from GET L-B	38º, 37', 31" N	121º, 18', 13" W	Drainage Ditch to American River
Outfall 003*	Outfall no longer proposed for use	38º, 36', 53" N	121º, 18', 10" W	Drainage Ditch to American River
Outfall 004	Treated Groundwater from GET K-A and AC-6	38º, 36', 07" N	121º, 19', 02" W	Drainage Ditch to American River

Outfall 005	Treated Groundwater from Chettenham Well and AC-23	38º, 34', 46" N	121º, 19', 42" W	Boyd Station Channel to American River
Outfall 006	Treated Groundwater from GET H-A an AC-18	38º, 32', 18" N	121º, 18', 59" W	Morrison Creek
Outfall 007	Treated Groundwater from Sailor Bar Well	38º, 37', 59" N	121º, 14', 21" W	Sailor Bar Pond
Outfall 008*	Treated Groundwater from Various GETs	38º, 38', 6" N	121º, 13', 13" W	American River at Natomas Stilling Basin
Outfall 009*	Treated Groundwater from Various GETs	38º, 38', 12" N	121º, 12', 11" W	Alder Creek – Tributary to the American River

*Future outfall

This Order was adopted by the Regional Board on:	**18 March 2010**
This Order shall become effective on:	**18 March 2010**
This Order shall expire on:	**1 March 2015**
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, **not later than 180 days in advance of the Order expiration date** as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that Order No.R5-2010-0039 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the CWC and regulations adopted thereunder, and the provisions of the federal CWA, and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements herein.

I, Pamela C. Creedon, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on xx xxxxxx xxxx.

_____
PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
REGION 5, CENTRAL VALLEY REGION

ORDER NO. R5-2010-0039
NPDES NO. CA0083861

TABLE OF CONTENTS

I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	Aerojet-General Corporation
Name of Facility	Groundwater Extraction and Treatment Systems
Facility Address	Aerojet Road Sacramento, CA 95813-6000 Sacramento County
Facility Contact, Title, and Phone	Mr. Chris Fennessy, (916) 355-3341
Mailing Address	P.O. Box 13222 Sacramento, CA 95813-6000
Type of Facility	Groundwater Extraction and Treatment Plants
Facility Design Flows	ARGET – 4.96 million gallons per day (mgd) – Discharge 001,Outfall 001 GET E/F – 8.64 mgd – Discharge 002, Outfall 001 GET H-A – 2.88 mgd – Discharge 004, Outfall 005 and/or 006 GET J – 5.98 mgd – Discharge 005, Outfall 001 GET K-A– 4.03 mgd – Discharge 007, Outfall 004 GET L-A – 2.88 mgd – Discharge 008, Outfall 002 GET L-B – 1.44 mgd – Discharge 009, Outfall 002 Sailor Bar Pond – 0.36 mgd – Discharge 010, Outfall 007 Chettenham – 1.08 mgd, Discharge 011, Outfall 005 AC-6 – 1.08 mgd – Discharge 013, Outfall 004 AC-18 – 2.59 mgd - Discharge 014, Outfall 006 AC-23 – 3.17 mgd – Discharge 015, Outfall 006

II. FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (hereinafter Regional Water Board), finds:

A. **Background.** The Aerojet-General Corporation (hereafter, Discharger) is currently discharging under Order No. R5-2010-0039 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0083861. The Discharger originally submitted a Report of Waste Discharge, dated 11 April 2005 and supplemental information dated 28 April 2005 and 12 May 2005**,** and applied for a NPDES permit revision to discharge up to 39.09 mgd of treated groundwater from up to eleven groundwater extraction and treatment systems (GETs), with two of them being temporary.

The Discharger submitted a request dated 9 July 2007 to modify the effluent limitation for N-nitrosodimethylamine (NDMA) for GET J, and future treatment systems GET K-A, GET L-A and GET L-B. The adopted permit at the time, Order No. R5-2006-013, contained an interim effluent limit for NDMA for GET J of 0.010 micrograms per liter (µg/L) to allow an evaluation of the technical and economical issues regarding removal of NDMA. The Discharger provided sufficient information to allow the effluent limitation for NDMA for GETs J, K, L-A and L-B to be set at 0.007 µg/L. Further detailed discussion of this issue is found in Attachment F. In addition, in June 2007 the California Office of Health Hazard Assessment revised the Public Health Goal for NDMA from 0.002 µg/L to 0.003 µg/L. The

Regional Water Board revised the NPDES permit with the adoption of Order No. R5-2007-0165, modifying the effluent limitations for NDMA.

In 2008, the Discharger requested a revision to the effluent limitation for trichloroethylene (TCE) for the GET E/F discharge (Discharge 002). The combination of treatment technologies at the GET E/F system, utilizing the best available technologies for removal of volatile organics (which includes TCE), NDMA and perchlorate was demonstrated to not consistently meet the effluent limitation for TCE due to low concentrations of biosolids carryover from the perchlorate treatment system. The original effluent limitations for TCE were 0.5 µg/L for the monthly average and 0.7 µg/L for the daily maximum. The Primary Maximum Contaminant Level for TCE is 5.0 µg/L and the California Public Health Goal (one-in-a-million excess cancer risk) has been established by the California Office of Health Hazard Assessment at 1.7 µg/L. Resolution No. R5-2009-0016 revised the Effluent Limitation for TCE for GET E/F to 1.5 µg/L. None of the other discharge effluent limitations for TCE covered by the order were modified.

Since adoption of Order No. R5-2007-0165, the Discharger completed the construction of GET K-A and discontinued the operation of interim GET K and interim GET H. The Discharger submitted a revised Report of Waste Discharge dated 21 May 2009 requesting the addition of three new discharges associated with municipal water supply wells and several minor modifications. Three municipal water supply wells will be equipped with treatment units to remove pollutants associated with plumes in groundwater emanating from the Discharger's property. The treated water would initially be discharged to the stormwater drainage system for two to four months prior to allowing the water to be supplied for potable purposes. One well would be operated on a continuous basis to help cleanup the groundwater. Thus, at times, the treated water from the well would be discharged to the storm drain when the water was not needed for potable supply. The other two wells would be operated on an as-needed basis with the water going to the distribution system. All the wells would have periodic discharges of 1-2 minutes in duration during well startup and shutdown to minimize pressure issues within the distribution system.

The minor changes requested by the Discharger included:

a. Changing the names of GET L-1 to GET L-B, GET L to GET L-A, and GET K to GET K-A;
b. moving the outfall from GET L-A to the American River (Outfall 002) approximately 1,900 feet downstream; and
c. moving the discharge from GET K-A from Outfall 003 to Outfall 004 in response to a request from the City of Rancho Cordova.

In addition, the Discharger requested allowing removal of the perchlorate treatment system on the Chettenham well, while continuing to operate the well with discharge to the storm drain in order to evaluate the continued operation on groundwater pollution containment. The concentrations of perchlorate have dropped from a high of over 90 µg/L to less than 4 µg/L. The effluent limitation in the existing permit is 4 µg/L. The PHG and MCL for

perchlorate are both 6 µg/L. The effluent limitation for perchlorate for the discharge from the Chettenham well treatment system is revised to 6 µg/L when there is no treatment system on the well. However, if treatment is subsequently restarted, the effluent reverts to the 4 µg/L value, based on best available technology.

Since adoption of Order No. R5-2010-0039, the Discharger has constructed the three treatment systems on the three municipal supply wells, AC-6, AC-18 and AC-23 and commenced operation of the AC-6 well system. The construction and potential operation of the three systems has changed from what was anticipated in the 2010 revision to this permit. During initial testing of the treatment systems for AC-18 and AC-23 it was noted that fine particles entered the system during the first10 minutes of startup of the water supply well. In order to prevent clogging of the ion exchange resin, the two systems will be plumbed to allow the fines to dissipate prior to sending the water through the resin, Those first few minutes of flow will be discharged to the storm drain.

As these discharges are not through the treatment system, the discharges during startup and shutdown of the wells are considered well purging and covered under Discharge Point 12 of this permit. Generally during well startup and shutdown, the discharge occurs for 1 to 3 minutes, but may be up to 15 -20 minutes at AC-18 and AC-23 to minimize the concentration of fines. Subsequent discharges that are not during well startup and shutdown are covered under Discharge Point 13 for AC-6, Discharge Point 14 for AC-18 and Discharge Point 15 for AC-23.

In addition to the discharges during operation of the wells, there will be discharges of water during resin exchange and during well rehabilitation. Resin exchange discharge occurs during draining of the vessel, rinsing the vessel and adding the new resin. These discharges are generally of low volume (1000-8000 gallons) and occur infrequently. There may be instances where the discharge will last up to four days if bacteria are found after resin change-out. This fits within the parameters listed for Discharge Point 12. Well rehabilitation for these three wells occurs every 3-5 years and also falls within the parameters of Discharge Point 12.. Since these discharges are either of low volume or occur very infrequently, they are considered low threat and are covered under Discharge Point 12.

The last change being made at this time is to the time schedule for compliance with the effluent limitation for the ARGET facility. As USEPA was delayed in its order to Aerojet to implement the Record of Decision for Operable Unit 5 (issued September 2011), that includes the ARGET facility, implementation of the remedy and upgrade of the ARGET facility has also been delayed. It is estimated that the construction of the perchlorate treatment facility at ARGET will occur by 1 December 2013. The schedule has been changed to reflect this information.

This permit also continues to allow Aerojet to discharge low-threat discharges consisting of monitor well, extraction well and water supply well development water, purge water and

extraction and supply well aquifer test water. Those discharges are subject to similar effluent limitations as established for the GETs.

B. **Facility Descriptions.** The Discharger currently owns and operates eight groundwater extraction and treatment systems (hereafter "Facilities") that discharge treated groundwater to surface waters in accordance with an NPDES permit. One facility, GET L-A, is still under construction.

a. ARGET (Discharge 001). The American River Study Area (ARSA) treatment facility is on the Aerojet site. The facility consists of a ozone and hydrogen peroxide advanced oxidation process to reduce concentrations of volatile organic compounds (VOCs) and 1,4-dioxane, and air-stripping to remove any remaining VOCs. See Attachment C-1.
b. GET E/F (Discharge 002). The GET E/F facility is also on Aerojet property. It uses biological reduction to remove perchlorate, an ultraviolet light and hydrogen peroxide process to destroy NDMA and VOCs, and air stripping to remove remaining VOCs from up to 6000 gpm of influent. There is also a sand filter and clarifier for solids control. The solids from the clarifier are discharged to the sanitary sewer under a Sacramento County Regional Sanitation District (SCRSD) issued permit. The GET E/F facility has been operating in its current configuration since 2000. See Attachment C-2.
c. GET H-A (Discharge 004). The interim GET H facility (Discharge 003) discontinued operation in 2006 and all of the GET H extraction wells feed into the GET H-A facility. The GET H-A facility (Discharge 004), completed in 2006, utilizes granular activated carbon (GAC) to remove VOCs and ion exchange resin to remove perchlorate from approximately 2000 gpm of extracted groundwater. See Attachment C-4.
d. GET J (Discharge 005). The GET J facility is similar to GET H-A, but with the addition of ultraviolet/hydrogen peroxide treatment for the destruction of NDMA and particulate filtration to help the ultraviolet system. The facility was recently upgraded to allow for hydrogen peroxide addition to be used with the UV treatment to additionally destroy VOCs. The Discharger may discontinue use of the GAC treatment provided the advanced UV oxidation meets VOC effluent limitations The system is designed to treat 4150 gpm and is found on Pyrites Way in Gold River. See Attachment C-5.
e. GET K-A (Discharge 007). Use of the interim GET K facility (Discharge 006) was discontinued in 2009 with the completion of the GET K-A facility. The GET K-A facility uses particulate removal, hydrogen peroxide addition and ultraviolet light for treatment of NDMA and low concentrations of VOCs from an influent of 2880 gpm. The facility is located on Coloma Road in Rancho Cordova. See Attachment C-7.
f. GET L-A (Discharge 008). GET L-A (Discharge 008) is in Carmichael, near Ancil Hoffman Park and is currently under construction with completion anticipated in 2010. The facility will initially treat for NDMA using ultraviolet light. In the future, if VOCs and/or perchlorate are detected in the influent, VOC and/or perchlorate treatment will be added utilizing the same processes described above fro the GET K-A and GET J facilities. Whenever possible, the discharge from GET L-A will be applied to the adjacent Ancil Hoffman Golf Course.
g. GET L-B (Discharge 009). GET L-B is in Carmichael northeast of GET L-A and is adjacent to the Carmichael Water District water treatment plant. The plant utilizes ultraviolet light to destroy NDMA. The facility has been constructed to allow for

expansion for perchlorate and VOC treatment units if the influent is determined to contain those pollutants. See Attachment C-9.

h. Sailor Bar Park (Discharge 010). The Sailor Bar Park system provides for removal of VOCs by GAC on a water supply well for the pond in Sailor Bar Park. The park is on the north side of the American River adjacent to the village of Fair Oaks, approximately one half mile west of the Hazel Avenue Bridge.
i. Chettenham (Discharge 011). The Discharger has negotiated with California American Water Company (CalAm), owner of the Chettenham Well, to use the Chettenham Well on an interim basis as an extraction point to control a portion of the groundwater pollution and evaluate the effects of pumping the well on the groundwater pollution containment system. Wellhead treatment consisting of ion exchange for perchlorate removal is installed at the well site and will be used when necessary to keep the effluent concentration of perchlorate below 6 µg/L. The discharge is to the Boyd Station Channel.
j. Purge and Aquifer Test Waters (Discharge 012). The Discharger develops and purges wells prior to sampling and conducts aquifer tests on extraction/supply wells to determine aquifer characteristics to allow GET systems to be designed. These activities take place over vast areas on and off the Discharger's property. The purge water is generally low in volume (100's – 5000 gallons) and is provided treatment prior to discharge. Treatment is provided on the discharges to remove the pollutants of concern. If treatment is not practical, the water is contained and discharged through the sanitary sewer system with the Discharger's wastewater discharge permit with the SRCSD. In addition to these well discharges, low volumes of water are discharged from three wellhead treatment systems described below in Discharges 013, 014 and 015 during replacement of the ion exchange resin. The discharges occur infrequently and depend on the concentration of perchlorate in the influent to the treatment system which affects the useable life of the resin.
k. AC-6 (Discharge 013). Golden State Water Company's (Golden State) water supply well AC-6 on Dolecetto Drive in Rancho Cordova has been found to contain perchlorate. The Discharger has reached agreement with Golden State whereby a treatment system for perchlorate removal using ion-exchange has been added to the well site. The treated water will usually be placed into the potable water distribution system. During periods of low water demand, treated water produced by the well in excess of the demand may also be discharged to the storm drain.
l. AC-18 (Discharge 014). Golden State's water supply well AC-18 on International Drive in Rancho Cordova has been found to contain perchlorate. Similar to well AC-6, perchlorate removal using ion-exchange has been added to AC-18 well site. This well will only be operated on-demand and so the discharge to the storm drain will only occur during well startup and shutdown to minimize pressure issues within the distribution system.
m. AC-23 (Discharge 015). Golden State's water supply well (AC-23) on Capital Center Drive in Rancho Cordova also requires treatment to remove perchlorate. This system is identical to that described above for Discharge 014, Well AC-18.

Treated groundwater is discharged from Discharges 001, 002 and 005 to Buffalo Creek (tributary to the American River), from Discharges 004 and 014 to Morrison Creek (tributary

to the Sacramento River), from Discharges 007, 008, 009, 011, 013 and 015 to drainage channels to the American River, and from Discharge 010 to a pond in Sailor Bar Park (see table on cover page), waters of the United States and part of the Sacramento-San Joaquin Delta (Delta) within the American River and Sacramento River watersheds. Sacramento County requested during development of the previous permit to allow for the potential discharge from some or all of the GETs covered in this permit to Alder Creek, to assist in their reuse of the treated groundwater. The previous NPDES permit and this permit include a provision allowing for the discharge to Alder Creek pending completion of acceptable studies of the potential thermal and toxicity impacts on Alder Creek, Lake Natoma, the American River and the Nimbus Fish Hatchery. Attachment B-1 provides a map describing the locations of the Facilities. Attachments C-1 through C-11 provide wastewater flow schematics of the Facilities.

C. **Legal Authorities.** This Order is issued pursuant to section 402 of the Federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC). It shall serve as a NPDES permit for point source discharges from these facilities to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4 of the CWC for discharges that are not subject to regulation under CWA section 402.

D. **Background and Rationale for Requirements**. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through G,which contain background information and rationale for Order requirements, are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. **California Environmental Quality Act (CEQA).** This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC. The Department of Toxic Substances Control certified a final Negative Declaration and Initial Study for the American River Study Area project in accordance with CEQA and State CEQA Guidelines. The Board has reviewed the negative declaration and these waste discharge requirements will mitigate or avoid any significant impacts on water quality due to the discharges from the ARGET facility.

F. **Technology-based Effluent Limitations.** The Code of Federal Regulations (CFR) at 40 CFR §122.44(a) requires that permits include applicable technology-based limitations and standards. This Order includes technology-based effluent limitations that protect the beneficial uses of the receiving waters. The Regional Water Board has considered the factors listed in CWC §13241 in establishing these requirements. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

G. **Water Quality-based Effluent Limitations.** Section 122.44(d) of 40 CFR requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain

applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR §122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter.

H. **Water Quality Control Plans.** The Regional Water Board adopted a *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan.

The Basin Plan at page II-2.00 states that the beneficial uses of any specifically identified water body generally applies to its tributary streams. The Basin Plan does not specifically identify beneficial uses for Buffalo Creek and Alder Creek, or Morrison Creek, tributary to the American River and Sacramento River, respectively, but does identify present and potential uses for the American and Sacramento Rivers. These beneficial uses are municipal and domestic supply (MUN); agricultural supply, irrigation and stock watering (AGR); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); warm and cold migration of aquatic organisms (MIGR); warm and cold spawning (SPWN); wildlife habitat (WILD). In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic supply use to water bodies that do not have beneficial uses listed in the Basin Plan. Thus, as discussed in detail in this Fact Sheet, beneficial uses applicable to the American River, Sacramento River, Buffalo Creek, Alder Creek, Morrison Creek and Sailor Bar Park Pond are as follows:

Discharge Point	Receiving Water Name	Beneficial Use(s)
001, 002 and 005	Buffalo Creek and Alder Creek, Tributary of the American River	Existing: MUN, AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.
004 and 014	Morrison Creek, Tributary of the Sacramento River	Existing: MUN, AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.
007, 008, 009, 011, 012, 013 and 015	American River	Existing: MUN, AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.
010	Sailor Bar Pond, Potentially tributary to American River	Existing: MUN, AGR, REC-1, REC-2, WARM, COLD, MIGR, SPWN, WILD.

The Basin Plan includes a Wastewater Reuse Policy that encourages the reclamation and reuse of wastewater, including treated groundwater resulting from a cleanup action, where practicable. Those reuse options include municipal and industrial supply, crop irrigation, groundwater recharge, and wetland restoration. At this time, demonstrated cost-effective options that provides for reuse of the treated groundwater have been identified in the

Discharger's Reuse Plan, and agreements with water users are being negotiated. The Discharger and Sacramento County had entered into an agreement whereby the water discharged from the GETs was transferred to the County. The County analyzed a project for reuse of the treated groundwater whereby the County would take the water out of the Sacramento River and transfer the water back up to eastern Sacramento County. The County determined that the project was not cost-effective and terminated the agreement. New negotiations between the Discharger, Sacramento County and other water purveyors are on-going.

Several of the Dischargers GET facilities and future facilities are already providing or will be providing beneficial reuse of the treated groundwater. The discharge from the Sailor Bar Park facility (Discharge 010) is to the pond at the park maintaining the habitat provided by the pond throughout the year. The proposed use of treated water at Golden State wells AC-6, AC-18, and AC-23 is a beneficial use of this water that would otherwise be required to be taken from another source. A majority of the treated water from the GET L-A facility (Discharge 008) will be used for the direct irrigation of the Ancil Hoffman Golf Course whenever practical.

Until it is feasible for the remaining GET discharges to be reused, discharge to the American River and Sacramento River, and their tributaries, for a limited duration is a reasonable use of the treated groundwater on an interim basis since it implements the goals of cleaning up the aquifer, restoring its beneficial uses, and preventing additional public supply wells from being polluted as other alternatives are considered.

The remediation project has a potential effect on the sustainable yield of the groundwater basin from which the extraction fields takes its water. The Discharger, in accordance with requirements of a previous version of this Order, evaluated the sustainable yield of the aquifer south of the American River in a report dated 12 September 2003. That report stated that there would be an additional drawdown in the eastern part of Sacramento County in the vicinity of OU-3 of up to 30 feet. Implementation of the reuse alternatives contained in the Reuse Plan will help substantially mitigate the impact of the withdrawal of groundwater for remediation purposes. The required evaluations allowed the Regional Board to determine whether there are additional environmental impacts of the Discharger's pumping and will encourage the reuse of treated groundwater consistent with the Wastewater Reuse Policy set forth in the Basin Plan.

The State Water Board adopted a *Water Quality Control Plan for Control of Temperature in the Coastal* and *Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

Requirements of this Order specifically implement the applicable Water Quality Control Plans.

I. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, which was amended on May 4, 1995 and November 9, 1999,

and the CTR on May 18, 2000, which was amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

J. **State Implementation Policy.** On March 2, 2000, State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP*).* The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

K. **Compliance Schedules and Interim Requirements.** This permit has interim effluent limits for perchlorate at ARGET. The interim effluent limitation for perchlorate at ARGET is 11 µg/L until 1 December 2012, or earlier if perchlorate treatment has been added to ARGET. See Attachment F, Sections IV(E)(1) and VII(1)(3).

L. **Antidegradation Policy.** Section 131.12 of 40 CFR requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet (Attachment F) the permitted discharge is consistent with the antidegradation provision of 40 CFR Section 131.12 and State Water Board Resolution 68-16.

M. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

N. **Monitoring and Reporting.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

O. **Standard and Special Provisions.** Standard Provisions, which in accordance with 40 CFR §§122.41and 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included

in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

P. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity for a public hearing and to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

Q. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet (Attachment F) of this Order.

R. This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based effluent limitations. The technology-based effluent limitations consist of restrictions on VOCs, perchlorate, and NDMA. Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations are based on the CTR-SIP, which was approved by USEPA on May 1, 2001. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the [Clean Water] Act” pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater at a location or in a manner different from that described in the Findings is prohibited.

B. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Standard Provision I.G of Attachment D, Federal Standard Provisions.

C. Neither the discharge nor its treatment shall create a nuisance as defined in Section 13050 of the California Water Code.

D. Discharge of wastewater to Outfall 008 and 009 is prohibited until approved by the Executive Officer. Completion of an adequate assessment of the thermal impacts,

including a dilution study in Alder Creek/Lake Natoma, and potential impacts on the Natomas Fish Hatchery associated with those discharges at those two outfalls is required before consideration of approval by the Executive Officer.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points 001, 002, 004, 005, 007, 008, 009, 010, 011, 012, 013, 014 and 015 (Discharge Points 003 and 006 are no longer used)

1. Final Effluent Limitations

a. Discharge Point 001.

i. The discharge of effluent from the ARGET facilities shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location M-001, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 001	mgd	5.0	5.0	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.02	0.03	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.016	0.02	--	--
1,4-Dioxane	µg/L	3	6	--	--
	lbs/day	0.125	0.25	--	--
N-nitrosodimethylamine	µg/L	0.002	0.010	--	--
	lbs/day	0.000083	0.00042	--	--
Perchlorate[2]	µg/L	4	6	--	--
	lbs/day	0.167	0.25	--	--
Total Copper	µg/L	11	17	--	--
	lbs/day	0.46	0.71	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.
[2] See interim effluent for perchlorate, Section IV, 2.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

b. **Discharge Point 002**

i. The discharge of effluent from the GET E/F facilities shall maintain compliance with the following effluent limitations at Discharge Point 002, with compliance measured at Monitoring Location M-002, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 002	mgd	8.64	8.64	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.036	0.050	--	--
Trichloroethylene	µg/L	--	1.5, 3.0[2]	--	--
	lbs/day	--	0.11, 0.22[2]		
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.028	0.036	--	--
1,4-Dioxane	µg/L	3	6	--	--
	lbs/day	0.23	0.43	--	--
N-nitrosodimethylamine	µg/L	0.002	0.010	--	--
	lbs/day	0.00015	0.00072	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.300	0.43	--	--
Total Copper	µg/L	11	17	--	--
	lbs/day	0.82	1.22	--	--
Acetaldehyde	µg/L	5	5	--	--
	lbs/day	0.38	0.36	--	--
Formaldehyde	µg/L	50	50	--	--
	lbs/day	3.7	3.6		
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

[2] The daily maximum value is 1.5 µg/L, except during times when the Discharger is making operational changes to correct effluent exceedences from GET E/F. During those times, the daily maximum effluent limitation is 3.0 µg/L when approved by the Executive Officer.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

c. **Discharge Point 003**

i. This Discharge Point is no longer used as all extracted groundwater from Area 1 is sent to the GET H-A (Discharge 004) facility.

d. **Discharge Point 004**

i. The discharge of effluent from the GET H-A facility shall maintain compliance with the following effluent limitations at Discharge Point 004, with compliance measured at Monitoring Location M-004, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 004	mgd	2.88	6.5	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.012	0.017	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.009	0.012	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.096	0.14	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

e. **Discharge Point 005**

i. The discharge of effluent from the GET J facilities shall maintain compliance with the following effluent limitations at Discharge Point 005, with compliance measured at Monitoring Location M-005, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 005	mgd	5.98	5.98	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.025	0.035	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.019	0.025	--	--
1,4-Dioxane	µg/L	3	6	--	--
	lbs/day	0.15	0.30	--	--
N-nitrosodimethylamine	µg/L	0.007	0.010	--	--
	lbs/day	0.00035	0.0005	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.20	0.30	--	--
pH	standard units	--	--	6.5	8.5
Chloroform	µg/L	3.0	5.0		
	lbs/day	0.15	0.3		

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

f. **Discharge Point 006**

i. Discharge Point 006 is no longer used. The extracted groundwater is now being sent to GET K-A described under Discharge Point 007.

g. **Discharge Point 007**

i. The discharge of effluent from the GET K-A facilities shall maintain compliance with the following effluent limitations at Discharge Point 007, with compliance measured at Monitoring Location M-007, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 007	mgd	4.03	4.03	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.017	0.024	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.013	0.017	--	--
N-nitrosodimethylamine	µg/L	0.007	0.010	--	--
	lbs/day	0.00023	0.00034	--	--
Perchlorate	µg/L	4	6	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
	lbs/day	0.134	0.202	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

h. **Discharge Point 008**

i. The discharge of effluent from the GET L-A facilities shall maintain compliance with the following effluent limitations at Discharge Point 008, with compliance measured at Monitoring Location M-008, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 008	mgd	2.88	2.88	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.012	0.017	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.009	0.012	--	--
N-nitrosodimethylamine	µg/L	0.007	0.010	--	--
	lbs/day	0.00017	0.00024	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.096	0.14	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

i. **Discharge Point 009**

i. The discharge of effluent from the GET L-B facilities shall maintain compliance with the following effluent limitations at Discharge Point 009, with

compliance measured at Monitoring Location M-009, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 009	mgd	1.44	1.44	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.006	0.0084	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.0046	0.006	--	--
N-nitrosodimethylamine	µg/L	0.007	0.010	--	--
	lbs/day	0.000084	0.00012	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.048	0.072	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

j. **Discharge Point 010**

i. The discharge of effluent from the Sailor Bar Park Well facilities shall maintain compliance with the following effluent limitations at Discharge Point 010, with compliance measured at Monitoring Location M-010, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 010	mgd	0.36	0.36	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.0015	0.0021	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.00127	0.0015	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.012	0.018	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

k. **Discharge Point 011**

i. The discharge of effluent from the Chettenham Well facilities shall maintain compliance with the following effluent limitations at Discharge Point 011, with compliance measured at Monitoring Location M-011, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 011	mgd	1.1	1.1	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.0046	0.0064	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.0035	0.0046	--	--
Perchlorate	µg/L	4, 6[2]	6	--	--
	lbs/day	0.036/0.055	0.055	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.
[2] When perchlorate treatment system is being used the monthly average limitation is 4 µg/L. When no treatment system is being used the monthly average is 6 µg/L.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

l. **Discharge Point 012 - Purge and Aquifer Test Waters**

i. The discharge of purge water and aquifer test water from monitor wells, extraction wells, and supply wells shall maintain compliance with the following effluent limitations with compliance measured at Monitoring Point M-012, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Total Maximum Discharge[1]	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Per Monitor Well	mgd	0.01	0.01		

Parameter	Units	Effluent Limitations			
		Total Maximum Discharge[1]	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Per Aquifer Test or water supply well startup/shutdown[1]	million gallons	14.4	3.6		
Volatile Organic Contaminants[2]	µg/L	--	5.0	--	--
1,4-Dioxane	µg/L		10		
N-nitrosodimethylamine	µg/L		0.020	--	--
Perchlorate	µg/L		12		
pH	standard units	--	--	6.5	8.5

[1] Based on a well purge or aquifer test rehabilitation at 2500 gpm for a duration of 4 days.
[2] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 5.0 µg/L, except for those constituents that have a specific limit in the table.

m. **Discharge Point 013**

i. The discharge of effluent from the Golden State's water well AC-6 facilities shall maintain compliance with the following effluent limitations at Discharge Point 013, with compliance measured at Monitoring Locations M-013, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 013	mgd	1.08	1.08	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.0046	0.0064	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.0034	0.0045	--	--
Tetrachloroethene	µg/L	5.0	5.0		
	lbs/day	0.046	0.046		
Perchlorate	µg/L	4, 6[2]	6	--	--
	lbs/day	0.036, 0.055	0.055	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.
[2] When perchlorate treatment system is being used the monthly average limitation is 4 µg/L. When no treatment system is being used the monthly average is 6 µg/L.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

n. **Discharge Point 014**

i. The discharge of effluent from the Golden State's water well AC-18 facilities shall maintain compliance with the following effluent limitations at Discharge Point 014, with compliance measured at Monitoring Locations M-014, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 014	mgd	2.59	2.59	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.011	0.015	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--
	lbs/day	0.0082	0.011	--	--
Perchlorate	µg/L	4, 6[2]	6	--	--
	lbs/day	0.086, 0.12	0.12	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.
[2] When perchlorate treatment system is being used the monthly average limitation is 4 µg/L. When no treatment system is being used the monthly average is 6 µg/L.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

o. **Discharge Point 015**

i. The discharge of effluent from the Golden State's water well AC-23 facilities shall maintain compliance with the following effluent limitations at Discharge Point 015, with compliance measured at Monitoring Locations M-015, as described in the attached Monitoring and Reporting Program (Attachment E):

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 015	mgd	3.17	3.17	--	--
Volatile Organic Contaminants[1]	µg/L	0.5	0.7	--	--
	lbs/day	0.013	0.018	--	--
1,2-Dichloroethane	µg/L	0.38	0.5	--	--

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
	lbs/day	0.010	0.013	--	--
Perchlorate	µg/L	4, 6[2]	6	--	--
	lbs/day	0.11, 0.16	0.16	--	--
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for those constituents that have a specific limit in the table.
[2] When perchlorate treatment system is being used the monthly average limitation is 4 µg/L. When no treatment system is being used the monthly average is 6 µg/L.

ii. Survival of aquatic organisms in 96-hour bioassays shall be no less than 70% for any one bioassay and 90% for the median of any three or more consecutive bioassays.

2. **Interim Effluent Limitations**

a. **Effective immediately and ending on 1 December 2013, or until the treatment system to remove perchlorate at the ARGET facility is constructed, whichever is sooner,** the discharge of treated effluent from the ARGET facility shall maintain compliance with the following effluent limitation for perchlorate at Discharge Point 001, as described in the attached Monitoring and Reporting Program (Attachment E). This interim effluent limitation shall apply in lieu of the corresponding final effluent limitation for perchlorate specified during the time period indicated in this Order.

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
perchlorate	µg/L	8	8	--	--

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving surface water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Alder Creek, Buffalo Creek, Morrison Creek, and the American River:

1. **Bacteria***:* The fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.

2. **Dissolved Oxygen**: The monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation. The DO concentration shall not be reduced below 7.0 mg/L at any time.

3. **Oil and Grease**: Oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or otherwise adversely affect beneficial uses.

4. **Color**: Discoloration that causes nuisance or adversely affects beneficial uses.

5. **pH**: The ambient pH to be depressed below 6.5, nor raised above 8.5, nor changes in normal ambient pH levels to be exceeded by more than 0.5 units. A monthly averaging period may be used for determining compliance with the above 0.5 receiving water pH limitation.

6. **Temperature**: The natural receiving water temperature to increase more than 5°F.

7. **Settleable Matter**: Substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

8. **Radioactivity**:

    a. Radionuclides to be present in concentrations that are harmful to human, plant, animal or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.

    b. Concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 4 (MCL Radioactivity) of Section 64443 of Title 22 of the California Code of Regulations.

9. Toxicity: Toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.

10. Biostimulatory Substances: Biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

11. Floating Material: Floating material in amounts that cause nuisance or adversely affect beneficial uses.

12. Sediment: Suspended sediment load and suspended sediment discharge rate altered in such a manner to cause nuisance or adversely affect beneficial uses.

13. Suspended Sediment: Suspended sediment concentrations that cause nuisance or adversely affect beneficial uses.

14. Taste and Order: Taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.

15. Turbidity: Changes in turbidity that cause nuisance or adversely affect beneficial uses. Turbidity attributable to controllable water quality factors to exceed the following:

    a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.

    b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.

    c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.

    d. More than 10 percent where natural turbidity is greater than 100 NTUs.

16. Pesticides:

    a. Pesticides in individual or combined concentrations that adversely affect beneficial uses.

    b. Pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses.

    c. Total identifiable persistent chlorinated hydrocarbon pesticides in concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the Executive Officer.

    d. Concentrations exceeding those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 C.F.R. Section 131.12.)

    e. Concentrations exceeding the lowest levels technically and economically achievable.

f. Concentrations exceeding the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

g. Concentrations of thiobencarb in excess of 1.0 mg/L.

17. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. **Regional Water Board Standard Provisions.** The Discharger shall comply with the following provisions:

   a. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.

   b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

      i. Violation of any term or condition contained in this Order;
      ii. Obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;
      iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
      iv. A material change in the character, location, or volume of discharge.

      The causes for modification include:

      i. **New regulations**. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

      ii. **Land application plans**. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge,

to revise an existing land application plan, or to add a land application plan.

iii. **Change in sludge use or disposal practice**. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Water Board may review and revise this Order at any time upon application of any affected person or the Regional Water Board's own motion.

c. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Regional Water Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, even if this Order has not yet been modified.

d. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 04(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:

i. Contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or

ii. Controls any pollutant limited in the Order.

The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

e. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

f. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

g. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by USEPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.

h. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological waste is prohibited.

i. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.

j. Safeguard to electric power failure:

   i. The Discharger shall provide safeguards to assure that, should there be reduction, loss, failure of electric power, the discharge shall comply with the terms and conditions of this Order.

   ii. Upon written request by the Regional Water Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Regional Water Board.

   iii. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Regional Water Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Regional Water Board that the existing safeguards are inadequate, provide to the Regional Water Board and USEPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Regional Water Board, become a condition of this Order.

k. The Discharger, upon written request of the Regional Water Board, shall file with the Regional Water Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events.

   The technical report shall:

i. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

ii. Evaluate the effectiveness of present facilities and procedures and state when they became operational.

iii. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

The Regional Water Board, after review of the technical report, may establish conditions, which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

l. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Regional Water Board by **31 January.** A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Regional Water Board may extend the time for submitting the report.

m. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Regional Water Board staff. The Quality Assurance-Quality Control Program must conform to USEPA guidelines or to procedures approved by the Regional Water Board.

i. Unless otherwise specified, all metals shall be reported as Total Metals.

ii. Acute bioassays shall be performed in accordance with guidelines approved by the Regional Water Board and the Department of Fish and Game or in accordance with methods described in USEPA's manual for

measuring acute toxicity of effluents (EPA-821-R-02-012 and subsequent amendments).

iii. Short-term chronic bioassays shall be performed in accordance with USEPA guidelines (EPA-821-R-02-013 and subsequent amendments).

n. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Regional Water Board and USEPA.

o. The Discharger shall conduct analysis on any sample provided by USEPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to USEPA's DMQA manager.

p. The Discharger shall submit technical reports as directed by the Executive Officer. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code, Sections 6735, 7835, and 7835.1. To demonstrate compliance with Title 16, CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

q. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

r. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13385, 13386, and 13387.

B. Monitoring and Reporting Program Requirements

The discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.

b. If after review of effluent monitoring results it is determined that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective, or the discharge is causing groundwater degradation, this Order may be reopened and effluent limitations added for the subject constituents.

c. The Discharger may request the Executive Officer to reopen the permit to request a reduction in monitoring, if appropriate.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. **Chronic Whole Effluent Toxicity Requirements.** For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct chronic whole effluent toxicity testing, as specified in the Monitoring and Reporting Program (Attachment E). Furthermore, this Provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity. If the discharge exceeds numeric toxicity trigger levels established in this Provision, the Discharger is required to initiate a Toxicity Reduction Evaluation (TRE), in accordance with an approved TRE Work Plan, and take actions to mitigate the impact of the discharge and prevent recurrence of the toxicity. A TRE is a site-specific study conducted in a stepwise process to identify source(s) of toxicity and the effective control measures for effluent toxicity. TREs are designed to identify the causative agents of whole effluent toxicity, evaluate the effectiveness of the toxicity control options, and confirm the reduction in effluent toxicity. This Provision includes the requirements for the Discharger to develop and submit a TRE Work Plan and also the procedures for accelerated chronic toxicity monitoring and TRE initiation.

(i) **Toxicity Reduction Evaluation (TRE) Work Plan. Within 90 days of the effective date of this Order,** the Discharger shall submit to the Regional Water Board a TRE Work Plan for approval by the Executive Officer. The TRE Work Plan shall outline the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity. The TRE Work Plan shall be developed in accordance with EPA guidance and shall contain adequate detail to allow the Discharger to immediately implement a TRE as required in this Provision.

(ii) **Numeric Toxicity Trigger.** The numeric toxicity trigger is **1 TUc**[2] for any test species. The numeric toxicity trigger is not an effluent limitation, it is the toxicity threshold at which the Discharger is required to perform accelerated chronic toxicity monitoring to confirm effluent toxicity, as well as, the threshold to initiate a TRE. The accelerated monitoring specifications are described in subsection (iv), below.

(iii) **Accelerated Monitoring and TRE Initiation.** When the numeric toxicity trigger is exceeded during regular chronic toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring to confirm the effluent toxicity as required in the Accelerated Monitoring Specifications outlined in subsection iv, below. Any exceedance of the TRE Trigger during accelerated monitoring requires the Discharger to initiate a TRE in accordance with an approved TRE Work Plan. Notwithstanding the accelerated monitoring results, if there is adequate evidence of effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

(a) In the event the numeric toxicity trigger is exceeded during accelerated monitoring, specific actions the Discharger will take to investigate and identify the cause(s) of toxicity;

(b) In the event the numeric toxicity trigger is exceeded during accelerated monitoring, specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and

(c) A schedule for these actions.

(iv) **Accelerated Monitoring Specifications.** If the TRE Trigger is exceeded during regular chronic toxicity testing, within 14-days of notification by the laboratory of the exceedance, the Discharger shall initiate accelerated monitoring to confirm effluent toxicity. Accelerated monitoring shall consist of three (3) monthly chronic toxicity tests using the species that exhibited toxicity. The following protocol shall be used for accelerated monitoring and TRE initiation:

(a) If the results of three (3) consecutive accelerated monitoring tests do not exceed the TRE Trigger, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring. Notwithstanding the accelerated monitoring results, if there is adequate evidence of effluent toxicity, the Executive Officer may require that the Discharger initiate a TRE.

---

[1] See Attachment F (Fact Sheet) Section VII.B.2.a. for a list of EPA guidance documents that must be considered in development of the TRE Work Plan.

[2] TUc – Chronic toxicity unit. The reciprocal of the effluent concentration that causes no observable effect on the test organism in a chronic toxicity test (TUc=100/NOEC)

(b) If the source(s) of the toxicity is easily identified (i.e. temporary plant upset), the Discharger shall make necessary corrections to the facility and shall continue accelerated monitoring until three (3) consecutive accelerated tests do not exceed the TRE Trigger. Upon confirmation that the effluent toxicity has been removed, the Discharger may cease accelerated monitoring and resume regular chronic toxicity monitoring.

(c) If the result of any accelerated toxicity test exceeds the TRE Trigger, the Discharger shall cease accelerated monitoring and begin a TRE to investigate the cause(s) of, and identify corrective actions to reduce or eliminate effluent toxicity. Within thirty (30) days of notification by the laboratory of the exceedance of the TRE Trigger during accelerated monitoring, the Discharger shall submit a TRE Action Plan to the Regional Water Board including, at minimum:

1. Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including TRE WET monitoring schedule;
2. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
3. A schedule for these actions.

b. **Thermal Impacts Associated with Discharge to Outfall 008 or 009.** The Discharger is not permitted to discharge to Outfall 008 and/or 009 until an adequate thermal impact assessment is completed for Outfall 008 and/or 009 that demonstrates that the discharge will not cause an unacceptable thermal impact on the receiving water. The study must demonstrate that the discharge will meet the Water Quality Objectives for temperature found in the Basin Plan. Those objectives state “the natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not affect beneficial uses” and “at no time or place shall the temperature of COLD or WARM intrastate waters be increased more than $5^{o}F$ above the natural receiving water temperature”.

c. **Evaluation of Treatment Options for Discharge from AC-18 and AC-23.** As the discharges from these two water supply wells are not through the treatment plant, these low-threat, low-volume discharges from these two systems fall under Discharge Point 12 with an perchlorate effluent limitation of 12 µg/L. As the perchlorate concentration in the extracted groundwater has the potential to increase over time, when the effluent from the well is above 8 µg/L perchlorate for two consecutive months, the Discharger is required to submit a plan, within 90-days following the second month of exceedance, to assure the discharge from the well will be compliant with the perchlorate effluent limitation. The plan shall be executed upon approval by Regional Board staff.

3. Best Management Practices and Pollution Prevention – Not Applicable

4. Compliance Schedules

a. Final Effluent Limitations for Perchlorate at Discharge 001

i. If the effluent from the GET D system is added to ARGET and the total influent perchlorate concentration into ARGET is greater than 6 µg/L, then by **1 December 2013** the Discharger shall provide treatment equipment at the ARGET facility to remove perchlorate to less than 4 µg/L, the AMEL found in IV(A)(1)(a).

5. Construction, Operation and Maintenance Specifications

a. Operations and Maintenance Plan:

Within 60-days of startup of a GET, the Discharger shall certify in writing to the Regional Water Board that it has developed an Operation and Maintenance Plan (O&M). O&M plans have already developed for GET E/F, ARGET, Interim GET H and GET J under previous versions of the permit. The Discharger shall develop and implement the O&M plan to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State. The Discharger shall develop and implement an O&M plan consistent with the following objectives:

i. Operations and Maintenance

1) Maintain in-system production and wastewater treatment technologies to prevent the overflow of any floating matter or bypassing of treatment technologies.

2) Inspect the treatment systems on a routine basis in order to identify and promptly repair any damage.

3) Ensure storage and containment of chemicals or other materials to prevent spillage or release into waters of the United States, or waters of the State.

4) Implement procedures for properly containing, cleaning, and disposing of any spilled material.

ii. Recordkeeping

1) Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

v. Training

1) Adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill in order to ensure the proper clean-up and disposal of spilled material.

2) Train staff on the proper operation and cleaning of production and wastewater treatment systems, including training in feeding procedures and proper use of equipment.

The Discharger shall ensure that its operations staff are familiar with the O&M Plan and have been adequately trained in the specific procedures it requires.

b. Solids disposal specifications:

i. Collected screenings, sludges, and other solids, shall be disposed of in a manner approved by the Executive Officer and consistent *with Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.

ii. Any proposed change in solids disposal from a previously approved practice (as described in this Order) shall be reported to this office at least 90 days in advance of the change.

6. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

7. Other Special Provisions

a. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).

b. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision V.B, Attachment D, and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California

Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

c. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition or limitation contained in this Order, the Discharger shall notify the Regional Water Board by telephone (916) 464-3291 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall include the information required by Federal Standard Provision V.E.1 [40 CFR §122.41(l)(6)(i)].

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in Section IV of this Order will be determined as specified below:

A. Average Monthly Effluent Limitation (AMEL).
If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for that month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month. For NDMA and 1,4-dioxane, if the approved Practical Quantitation Level (PQL) is greater than the AMEL, then compliance is met if the monthly average is less than the PQL.

B. Maximum Daily Effluent Limitation (MDEL).
If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day. For NDMA and 1,4-dioxane, if the approved Practical Quantitation Level (PQL) is greater than the MDEL, then compliance is met if the daily value is less than the PQL

C. Instantaneous Minimum Effluent Limitation.
If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

D. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

E. Maximum 1-Hour Average.

If the analytical result of a samples collected within 1-hour are higher than the maximum 1-hour average effluent limitation for a parameter, a violation will be flagged and the discharger will be considered out of compliance for that parameter.